

## CLAIMS

What is claimed is:

1. A computerized interface for data presentation, comprising:  
a property analyzer to determine an item distribution for at least two cluster properties; and  
an organizer that forms new clusters based in part on the item distribution.
2. The system of claim 1, the cluster properties are associated with one or more data items, the data items are stored in at least one of a local and a remote storage location.
3. The system of claim 2, the data items include documents, files, folders, images, audio files, video files, code, messages, and a computer representation of external objects including people or locations.
4. The system of claim 2, the cluster properties are associated with at least one of an item's type, a date or time created, people associated with the data item, a location, a category, and a system, application, administrator or user-defined property.
5. The system of claim 1, the property analyzer determines a cluster by an item's type and then determines a subsequent cluster based upon another property.
6. The system of claim 1, the property analyzer assigns a clusterization score to various item properties and selects a property with a highest score.
7. The system of claim 6, the clusterization score is calculated by multiplying in the following equation:  $score = n\_items_{cluster1} * n\_items_{cluster2} * \dots$

8. The system of claim 6, the clusterization score is based on binomial distribution as follows:  $score = (N\_total)! / ((n\_items_{cluster1})! * (n\_items_{cluster2})! * \dots)$
9. The system of claim 1, further comprising a user interface to at least one of display cluster results, receive query selections, and receive property information, display information relating to a data item in a cluster.
10. A computer readable medium having computer readable instructions stored thereon for implementing the property analyzer and the cluster organizer of claim 1.
11. A system for automatically clustering query results, comprising:  
 means for retrieving properties of a plurality of items;  
 means for determining a score for the plurality of items based upon the properties;  
 and  
 means for automatically clustering data associated with the items based upon the determined score.
12. A method for automatic query clustering, comprising:  
 associating one or more properties with a plurality of data items;  
 determining a distribution for the data items based upon the properties; and  
 automatically clustering the data items based upon the determined distribution.
13. The method of claim 12, the distribution is determined from at least one of the following equations:  
 $score = n\_items_{cluster1} * n\_items_{cluster2} * \dots$   
 $score = (N\_total)! / ((n\_items_{cluster1})! * (n\_items_{cluster2})! * \dots)$

14. The method of claim 12, further comprising processing  $N$  items and  $M$  properties.
15. The method of claim 14, further comprising at least one of initializing  $M$  hash tables, iterating through  $N$  items and, for each item, iterating through  $M$  properties.
16. The method of claim 15, further comprising calculating a hash value for each property.
17. The method of claim 16, further comprising calculating a clusterization score for each property using data from an associated hash table.
18. The method of claim 12, further comprising automatically organizing clusters based upon a predetermined threshold.
19. The method of claim 18, further comprising suggesting alternative cluster grouping.
20. The method of claim 18, further comprising organizing clusters based upon user-defined properties.
21. A graphical user interface, comprising:
  - one or more data items and associated properties stored in a database;
  - one or more display objects created for the data items;
  - an input component for selecting the data items and the associated properties; and
  - a display component to present the display objects based in part on an automated analysis of the properties.

- 22. The interface of claim 21, further comprising controls for interacting with the properties.
- 23. The interface of claim 22, the properties are employed for nested querying of results.
- 24. The interface of claim 22, the properties include at least one of a type, a location, a category, a person, a date, a time, and a user-defined parameter.
- 25. The interface of claim 22, further comprising a component to learn implicitly from user actions.
- 26. The interface of claim 22, further comprising at least one semi-collapsed list or group.
- 27. The interface of claim 26, further comprising controls for expanding the list or group.
- 28. The interface of claim 27, where at least one large property cluster is presented in a squeezed view utilizing a semi-collapsed list.